Attorney Docket No. 200207120-1

Title: METHODS FOR CREATING CHANNELS

## IN THE CLAIMS

1. (original) A method of creating an internal channel of a fluid-ejection device, the method comprising:

encapsulating a channel core in an element of the fluid-ejection device that corresponds to the internal channel; and

dissolving at least a portion of the channel core.

- (original) The method of claim 1, wherein encapsulating a channel core in an element of the fluid-ejection device comprises encapsulating a water-soluble channel core in the element.
- (original) The method of claim 1, wherein encapsulating a channel core in an element of the fluid-ejection device comprises encapsulating a composite channel core in the element.
- 4. (original) The method of claim 3, wherein the composite channel core comprises a soluble material and insoluble particles dispersed within the soluble material.
- 5. (original) The method of claim 1, wherein encapsulating a channel core in an element of the fluid-ejection device comprises molding a material of the element around the channel core.
- 6. (original) The method of claim 1, wherein encapsulating a channel core in an element of the fluid-ejection device comprises:
  - disposing the channel core within a mold cavity; and

injecting a material of the element into the mold cavity.

Title: METHODS FOR CREATING CHANNELS

- 7. (original) The method of claim 1, wherein encapsulating a channel core in an element of the fluid-ejection device comprises:
  - forming the channel core in a groove of a component of the element of the fluid-ejection device; and
  - disposing a material of the element of the fluid-ejection device on the component so as to cover the channel core.
- 8. (original) A method of creating an internal channel of a fluid-ejection device, the method comprising:

forming a channel core that corresponds to the internal channel from a soluble material; disposing the channel core within a mold cavity;

injecting a material of an element of the fluid-ejection device into the mold cavity so as to encapsulate the channel core; and

dissolving the channel core from the material of the element of the fluid-ejection device.

- 9. (original) The method of claim 8, wherein molding a channel core from a soluble material comprises forming the channel core from a water-soluble polymer.
- 10. (original) The method of claim 8, wherein forming a channel core from a soluble material comprises molding a channel core having external threads.
- 11. (withdrawn) A method of manufacturing a manifold, the method comprising:

  forming a component of the manifold comprising a plurality of grooves;

  forming a channel core in each of the grooves;

  disposing a material on the component so as to cover the channel cores; and

  dissolving the channel core from each of the grooves to form internal channels that

respectively correspond to the grooves.

PAGE 4 Attorney Docket No. 200207120-1

Title: METHODS FOR CREATING CHANNELS

- 12. (withdrawn) The method of claim 11, wherein forming the component of the manifold comprises injection molding.
- 13. (withdrawn) The method of claim 11, wherein forming the component of the manifold comprises forming a conduit at an end region of each of the grooves that extends from the end region.
- 14. (withdrawn) The method of claim 13, wherein forming a channel core in each of the grooves comprises forming the channel core in the conduit at the end region of each of the grooves.
- 15. (withdrawn) The method of claim 14, wherein disposing a material on the component so as to cover the channel cores comprises disposing the material around the conduit so that the conduit passes completely through material.
- 16. (withdrawn) The method of claim 15, wherein dissolving the channel core from each of the grooves to form internal channels comprises dissolving the channel core in the conduit at the end region of each of the grooves.
- 17. (withdrawn) The method of claim 11, wherein forming the component of the manifold comprises intersecting each of the grooves with a respective one of a plurality holes that pass completely though the component.
- 18. (withdrawn) The method of claim 17, wherein forming a channel core in each of the grooves comprises forming the channel core in each of the holes.

Attorney Docket No. 200207120-1

19. (withdrawn) The method of claim 18, wherein dissolving the channel core from each of the grooves to form internal channels comprises dissolving the channel core in each of the holes.

- 20. (withdrawn) The method of claim 11, wherein one or more of the plurality of grooves includes first and second internal surfaces that lie in different planes.
- 21. (withdrawn) The method of claim 11, wherein forming a channel core comprises injecting a water-soluble material into each of the grooves.
- 22. (withdrawn) A method of manufacturing a fluid-ejection device, the method comprising: forming at least one internal channel within the fluid-ejection device, wherein forming the at least one internal channel comprises:

encapsulating at least one channel core in an element of the fluid-ejection device that corresponds to the at least one internal channel; and

removing the at least one channel core; and

fluidly coupling a fluid-ejecting substrate to the at least one internal channel.

- 23. (withdrawn) The method of claim 22, wherein removing the at least one channel core comprises dissolving the at least one channel core.
- 24. (withdrawn) The method of claim 22, wherein removing the at least one channel core comprises melting the at least one channel core by directing energy through the element and onto the channel core to heat channel core without substantially heating the element.
- 25. (withdrawn) A method of manufacturing a fluid-deposition system, the method comprising:

## RESPONSE TO NON-FINAL OFFICE ACTION

Serial No. 10/657,624

Title: METHODS FOR CREATING CHANNELS

forming at least one internal channel within the fluid-deposition system, wherein forming the at least one internal channel comprises:

encapsulating at least one channel core in an element of the fluid-deposition system that corresponds to the at least one internal channel; and removing the at least one channel core;

fluidly coupling a fluid-ejecting substrate of a fluid-ejection device of the fluiddeposition system to the at least one internal channel; and

fluidly coupling a fluid reservoir of the fluid-deposition system to the at least one internal channel.

- 26. (withdrawn) The method of claim 25, wherein removing the at least one channel core comprises dissolving the at least one channel core.
- 27. (withdrawn) The method of claim 25, wherein removing the at least one channel core comprises melting the at least one channel core by directing energy through the element and onto the core to heat channel core without substantially heating the element.
- 28. (withdrawn) The method of claim 25, wherein forming the at least one internal channel within the fluid-deposition system comprises forming the at least one internal channel within the fluid-ejection device.
- 29. (withdrawn) The method of claim 25, wherein forming the at least one internal channel within the fluid-deposition system comprises forming the at least one internal channel within a manifold of the fluid-deposition system that is disposed between the fluid-ejection device and the fluid reservoir.
- 30. (withdrawn) A method of creating an internal channel of a fluid-ejection device, the method comprising:

Serial No. 10/657,624

Title: METHODS FOR CREATING CHANNELS

encapsulating a channel core in an element of the fluid-ejection device that corresponds to the internal channel; and

melting the channel core from the element by directing energy through the element and onto the channel core to heat channel core without substantially heating the element.

- 31. (withdrawn) The method of claim 30, wherein directing energy through the element and onto the channel core to heat channel core without substantially heating the element comprises heating the channel core to a higher temperature than the element.
- 32. (withdrawn) The method of claim 30, wherein directing energy through the element and onto the channel core comprises directing infrared, laser, ultrasonic, or magnetic energy through the element and onto the channel core.
- 33. (withdrawn) The method of claim 30, wherein directing energy through the element and onto the channel core comprises magnetically exciting particles within the channel core.
- 34. (withdrawn) A method of manufacturing a manifold, the method comprising: forming a component of the manifold comprising a plurality of grooves; forming a channel core in each of the grooves; disposing a material on the component so as to cover the channel cores; and melting the channel core from each of the grooves to form internal channels that respectively correspond to the grooves by directing energy through at least one of the component and the material and onto the channel cores to heat channel cores without substantially heating the material.